

Drake)⁷ is the same species Heidemann described and synonymizing it with *L. constricta* Champion⁸ without examination of the type of that species is guesswork. As pointed out in my paper the species are similar, but specimens from the United States differ sufficiently from the figure in the *Biologia* to make it advisable to regard the species as distinct.

The known range of the species covers the territory from Massachusetts to South Carolina, and from Indiana to Arkansas.

Leptostyla oblonga Say. The known range is extended to Arkansas.

Leptostyla heidemanni Osborn and Drake,⁹ is not a synonym of *L. clitoriae* Heidemann, but a very distinct species closely related to *L. oblonga* Say.

NOTES ON *CERACIS SALLEI* MELLIE* AND *BRACHYCIS BREVICOLLIS* CSY.* BRED FROM FUNGI.

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Ceracis sallei Mellie (Ann. Ent. France, VI, 377).

This species was described by Mellie in 1848 from specimens collected at New Orleans, Louisiana. Casey¹ in 1898 added North Carolina and Pennsylvania (Westmoreland County) to the distribution. Blatchley² records it as rare in Jackson County, Indiana, and Dury³ in his synopsis states that it is abundant in Ohio and ranges in the Eastern United States, from Canada to Texas. In Smith's New Jersey List it is recorded from East Jersey (Dietz), Chester and Arlington. Recently it has been found at the following additional localities in New Jersey—Springfield, April 22, Monmouth Junction, March 20, High Bridge, March

⁷ Ohio State Univ. Bul. 20, June, 1916, pp. 239-240.

⁸ Biol. Centr. Am. Heter., 2, pp. 20-21, Pl. 2, Fig. 6, December, 1897.

⁹ Ohio State Univ. Bul. 20, pp. 238-9, June, 1916.

* Kindly identified by C. W. Leng.

¹ Studies in the Ptinidæ, Cioidæ and Sphindidæ of Amer. Jour. N. Y. Ent. Soc., Vol. VI, June, 1898.

² Coleoptera of Indiana, p. 901.

³ Synopsis of Col. Fam. Cisidæ of Amer. north of Mexico, Jour. Cinn. Soc. Nat. Hist., Vol. XXII, No. 2, 1917.

13, and Morristown, March 27, breeding in such fungi as *Polyporus gilvus*, *P. dichrous*, *P. versicolor*, *P. hirsutus*, *Fomes applanatus*, *F. igniarius* and *Lenzites betulina* being most abundant in *Polyporus gilvus*, *P. versicolor* and *Fomes igniarius* and least abundant in *Fomes applanatus*. All of the fungi mentioned occur on the dead wood of deciduous trees except *Fomes igniarius* which is found on the trunks of living deciduous trees.

Ceracis sallei evidently hibernates in the larval and adult stages as both forms were abundant in fungi during March. Egg laying starts during the last of April if the weather is warm as eggs were noted at this time in channels eaten by the adults in the context of such fungi as *Polyporus versicolor* and *P. hirsutus*. The beetles and larvæ both feed in the context and tubes of the fungus and when numerous soon reduce it to a powdery condition so that it eventually weathers away.

The egg is whitish, translucent and oval being about 0.24 mm. long and 0.14 mm. wide. They are deposited singly at the ends of channels eaten by the females. The full-grown larva is 2.4 mm. long and 0.3 mm. wide, subcylindrical, elongate; sparsely hairy; whitish except for third thoracic and first abdominal segments which are brownish and abdominal segments four to nine which are yellowish white, these colors being due to the contents of the alimentary tract showing through the transparent skin. The ocelli are lateral, a pair and one somewhat above making a row of three. The head is slightly narrower than the prothorax; thoracic and abdominal segments subequal in width; first thoracic segment twice as long as second; remaining thoracic and abdominal segments subequal in length; ninth abdominal segment bearing a dorsal pair of dark, chitinized hooks with large, basal portions. Legs terminated by fine, sharp hooks.

Brachycis brevicollis Casey (Jour. N. Y. Ent. Soc., Vol. VI, p. 86).

Casey described this species in 1898 from specimens found at Ithaca, N. Y. It is not listed by Blatchley from Indiana and Dury⁴ records it from North Illinois and Mobile, Alabama, saying that it is abundant in Alabama, but that he has not yet found specimens at Cincinnati. Smith in his New Jersey List states that

⁴ Jour. Cinn. Soc. Nat. Hist., Vol. XXII, No. 2, p. 22.

it is sure to occur in the state, but gives no localities. The species can now be definitely recorded in New Jersey from Springfield, April 22, Monmouth Junction, March 1, and High Bridge, March 13, breeding in such fungi as *Polyporus gilvus*, *Fomes bakeri* and *Fomes igniarius*. *Polyporus gilvus* occurs on all kinds of dead wood, *Fomes bakeri* on the trunks of living and dead birch trees and *Fomes igniarius* on the trunks of living deciduous trees.

The beetle was very abundant in *F. igniarius* at High Bridge, N. J., and *Polyporus gilvus* at Springfield and Monmouth Junction, N. J., and undoubtedly occurs plentifully in such fungi at other localities. Overwintering appears to take place in the larval and adult stages and pupæ can be found during the spring. The larvæ and adults work in both context and tubes of the fungus and pupation usually takes place in the context. When abundant, the fungus is reduced to a fine powder mixed with elongate pellets of black excrement. Emergence takes place either through the upper or lower surface of the fungus; in the case of *Polyporus gilvus*, the lower seems preferred.

Some of the exit holes in both *gilvus* and *igniarius* are topped with little, truncated hollow, cones. These appear to be built by the beetle backing out of its exit hole and voiding pellets of black, shining excrement from time to time around the edge of the circular opening. The interstices between the pellets become filled with borings and the entire mass eventually hardens and becomes quite brittle. The height of these structures varies, but as a rule approaches the length of the beetle.

Full-grown Larva: Length 2.4 mm.; width 0.5 mm.; subcylindrical, elongate, sparsely hairy, segmentation distinct, whitish except for mandibles and adjacent mouth parts which are dark; ocelli lateral, three in a row; head small; first thoracic segment twice as wide as head; first thoracic segment twice as long as second; remaining thoracic and abdominal segments subequal in length; ninth abdominal segment bearing a pair of dorsal, well-developed, dark, chitinous hooks with large basal portions, hooks curved anteriorly; legs terminated by fine, sharp hooks.

Pupa: Length 1.3 mm.; greatest width 0.7 mm. Suboval, white, rounded anteriorly, narrow posteriorly; mandibles prominent, reddish; eyes black, numerous distinct ommatidia; body sparsely

hairy; wingpads reaching almost to end of abdomen; anterior edge of prothorax armed with eight spines each terminated by a comparatively long hair; median dorsal surface of prothorax bears four transverse similar spines; another transverse row close to posterior edge of prothorax; a pair of smaller spines on lateral edge of prothorax; a cylindrical, median, dorsal tubercle just behind prothorax; antenna bearing two minute lateral spines; abdomen terminated by two parallel spines.

PROCEEDINGS OF THE BROOKLYN ENTOMOLOGICAL SOCIETY.

Meeting of May 15, 1919.—Long Island Records: Mr. Shoemaker shows *Adalia humeralis*, from Brooklyn, N. Y., supposed to be a variety of *Adalia bipunctata*. Mr. Burns exhibits the rare Syrphid *Callicera johnsoni* Hunter taken by him on flowers of *Prunus* on Staten Island; also *Buprestis decora*, found on May 5 at Tompkinsville, Staten Island, this being the most northern record of that beetle, but undoubtedly the result of accidental importation.

Scientific Programme: Dr. Bequaert reads a review of Mr. and Mrs. Phil and Nellie Rau, "Wasp Studies Afield," which has been published in the June number of this BULLETIN. Mr. Engelhardt reports upon the field trip to Flushing, N. Y., on April 20. He also speaks of his collecting experiences in the Pine Barren region at Massapequa, Long Island, on April 14. A special but futile search was then made for *Merolonche dolli* B. and McD., a noctuid, the only eastern representative of its genus and known only by the type specimens from Long Island in Dr. Barnes' collection, a specimen collected by Mr. Engelhardt several years ago at Massapequa and deposited by him in the U. S. National Museum, and another specimen from the same locality captured and owned by Mr. Wm. T. Davis. Mr. Engelhardt found, however, a fine freshly emerged female of *Feralia major*, resting on the trunk of a pitch pine; a specimen taken by Mr. Shoemaker, also a female, and this one are the only known records for Long Island. Other moths taken at Massapequa included: *Psaphidia resumens*, two males; *Todia rufago*, common when beaten from oak branches with last year's leaves attached; *Phobesia atomasis*, common in open woods; *Epicnaptera americana*, two females found resting on tree trunks; and *Lycia ursaria*, three males found under electric lights. That *Vespa crabro*, the European hornet, is now well established on Long Island was shown once more by three hibernating females in rotting logs. Mr. Schaeffer mentions the following other insects taken by Mr. Engelhardt at Massapequa: *Brachypalpus frontosus* Læw, *Dicerca asperata* L. & G.,